



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,775	06/20/2006	Kazuo Sato	SATO3028/GAL/PMB	2385
23364 7590 10/16/2008 BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314-1176				
EXAMINER				
VO, TUYEN KIM				
ART UNIT		PAPER NUMBER		
2887				
MAIL DATE		DELIVERY MODE		
10/16/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/565,775

**Applicant(s)**

SATO ET AL.

**Examiner**

Tuyen Kim Vo

**Art Unit**

2887

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Acknowledgment***

1. This Office Action is responsive to the amendment filed on 07/07/2008.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 and 7-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Natsukari et al. (US 2004/0046024 A1, hereinafter "Natsukari").

Re claims 1 and 3, Natsukari teaches a two dimensional code formation method comprising: a step of specifying code size for a two-dimensional code (see fig. 3 and [0010]); a step of calculating cell size for a unit cell of said two-dimensional code providing storage of said storage information in said 2-dimensional code having said specified code size (see fig. 3 and [0010]); a step of specifying the dot step size or number of dots  $n \times m$  (where  $n$  and  $m$  are natural numbers) to be arranged vertically and horizontally inside said unit cell (see, fig. 3 and [0025]); a step of creating laser-marking information for forming said 2-dimensional code having said specified code size, based on said code size, said storage information, said cell size and said dot step

size or number of dots (see [0098]-[0103]); and a step of laser marking said 2-dimensional code having said specified code size, based on said laser-marking information (see [0115]). See fig. 3 and [0094]-[0115].

Re claims 2, 8 and 11, Natsukari further teaches the calculation means performs a process of changing the cell size of the unit cell passed on change information for the storage information that was acquired by the information acquisition means. See [0112], [0113], [0125] and [0176].

Re claims 7 and 10, Natsukari teaches a system and method of a two dimensional code formation device comprising information-acquisition means (see figures 3-7) for acquiring the code size of 2-dimensional code, storage information that is to be written in said 2-dimensional code, the number of unit cells of said 2-dimensional code, and the dot step size or number of dots  $n \times m$  (where  $n$  and  $m$  are natural numbers) arranged vertically and horizontally inside a unit cell of said 2-dimensional code (see [0094]-[0126]); calculation means (figure 8) for performing a process of calculating the cell size based on said code size and number of cells, and a process of creating laser-marking information based on said code size, said storage information, said cell size, and said dot step size or number of dots (see [0127]-[0139]); and laser-marking means (see [0058]) for performing laser marking of 2-dimensional code based on said laser-marking information. In general, see figure 2 and [0009]-[0031].

Re claims 9 and 12, Natsukari further teaches the calculation means performs a process of creating different laser-marking information having different density based on

change information for the step size or number of dots that was acquired by the information acquisition means. See [0012], [0102] and [0103].

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natsukari et al. in view of Struye et al. (US 2004/0094729 A1, hereinafter "Struye").

Re claims 4 and 13, Natsukari teaches all subject matter claimed as discussed above (see section 3).

However, Natsukari fails to teach the two dimensional code comprising means for acquiring, storing and converting the manufacturing history information as recited in claims 4 and 13.

Struye teaches items (which serves as products) that can be marked in order to trace its manufacturing history. See [0080].

In view of Struye's teachings, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the two-dimensional code of Natsukari to have tracking information/code as taught by Struye in order for receiving parties to keep track of all the information including the manufacture's history in their

own databases for future references. Moreover, the product can also be detected and inspected by the manufacturer.

Re claim 6, the teachings of Natsukari as modified by Struye have been discussed above. In addition, Natsukari further teaches the laser marking step includes a process of reading the two dimensional code that was laser marked and checking whether or not marking of the two dimensional code is correct. See [0192]-[0196].

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Natsukari as modified by Struye as applied to claim 4 above, and further in view of Endo et al. (US 2003/0224256 A1, hereinafter "Endo").

Re claim 5, the teachings of Natsukari as modified by Struye have been discussed above. However, Natsukari as modified by Struye fail to teach laser marking the code by continuous laser-beam irradiation.

Endo teaches generating laser markings using continuous laser-beam irradiation. See [0094].

In view of Endo's teachings, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Natsukari as modified by Struye by providing the continuous laser-beam irradiation for generating the code as taught by Endo so that irradiation position of the laser beam is dot-like or continuous, whereby desired symbols, characters, and marks can be formed as the marking pattern on the material. See Endo: paragraphs [0094] and [0400].

***Response to Arguments***

7. Applicant's arguments filed 07/07/2008 have been fully considered but they are not persuasive.

Applicant traversed to the rejection by mainly arguing that the cited reference Nasukari fails to teach calculating the cell size of the two-dimensional code and creating laser marking information for forming the two-dimensional code based on the storage information as now recited in claims 1, 3, 4, 7, 10 and 13. However, Nasukari teaches calculating the cell size of the two-dimensional code and creating laser marking information for forming the two-dimensional code based on the data volume of the information to be encoded into the two-dimensional code, which is implying the storage information. See [0100], [0107] and [0109].

Base on the above rationale, it is believed that the claimed limitations are still met by Nasukari and therefor, the rejections to claims 1-13 are still maintained.

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyen Kim Vo whose telephone number is (571)270-1657. The examiner can normally be reached on Monday - Friday, 7:30a.m. - 5:00p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven S. Paik can be reached on (571) 272-2404. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuyen Kim Vo/  
Examiner, Art Unit 2887

/STEVEN S. PAIK/  
Supervisory Patent Examiner, Art  
Unit 2887

\*\*\*